

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number



TRANSMITTAL FORM

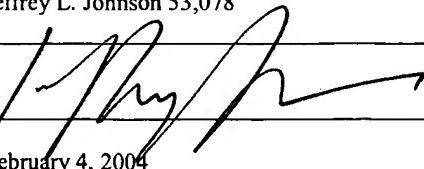
(to be used for all correspondence after initial filing)

		Application Number	10/706,880
		Filing Date	November 12, 2003
		First Named Inventor	Shuibo Xie
		Art Unit	*
		Examiner Name	*
Total Number of Pages in This Submission		Attorney Docket Number	1856-40401(9948.0-02)

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final	<input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Appeal Communication to Group (<i>Appeal Notice, Brief, Reply Brief</i>)
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	<input type="checkbox"/> Proprietary Information
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s)	<input checked="" type="checkbox"/> Other Enclosure(s) (<i>please identify below</i>): <i>Form PTO-1449 (4 p.); THIRTY-NINE (39) Cited References; and acknowledgement postcard</i>
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	Remarks	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Or Individual Name	Jeffrey L. Johnson 53,078
Signature	
Date	February 4, 2004

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or Printed Name	Sandra K. Begley
Signature	
Date	February 4, 2004

119140.01/1856.40401

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and selection option 2



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	Shuibo Xie et al.	§	GROUP ART UNIT:
SERIAL NO.:	10/706,880	§	
FILED:	November 12, 2003	§	EXAMINER:
FOR:	Improved Supports for High Surface Area Catalysts	§	

INFORMATION DISCLOSURE STATEMENT

Atty. Dkt. No.: 1856-40401(9948.0-02)
Date: February 4, 2004

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement, including completed Form PTO-1449, comprises a list of pertinent art of which Applicants are aware. If this application was filed prior to June 30, 2003, a copy of each publication listed on Form PTO-1449 is enclosed herewith.

The submission of this Information Disclosure Statement and the references submitted therewith is not an admission that the art cited is "prior" with respect to the present invention, nor is it a representation, that no better art exists. Applicants hereby reserve the right to swear behind or otherwise disprove any alleged "prior" nature of any art cited should the facts support and the situation warrant such an action. It is submitted that the art cited does not constitute a bar to the patentability of Applicants' invention under 35 U.S.C. § 102 or § 103.

As this Information Disclosure Statement is being filed pursuant to 37 C.F.R. § 1.97(b), no certification or fee is required.

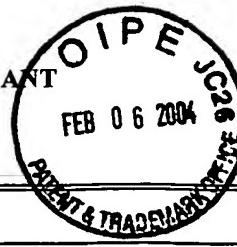
Respectfully submitted,

Jeffrey L. Johnson
Reg. No. 53,078
CONLEY ROSE, P.C.
P. O. Box 3267
Houston, Texas 77253-3267
(713) 238-8000
ATTORNEY/AGENT FOR APPLICANT

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
 (Use several sheets if necessary)

 Atty. Docket No.
 1856-40401 (9948.0-02) Serial No.
 10/706,880

 Applicant
 Shuibo Xie et al.

 Filing Date
 November 11, 2003 Group
**REFERENCE DESIGNATION U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	AA	3752775	08/14/1973	Yamaguchi et al.	252	464	
	AB	4537873	08/27/1985	Kato et al.	502	242	
	AC	4585752	04/29/1986	Ernest	502	314	
	AD	4738946	04/19/1988	Yamashita et al.	502	303	
	AE	4793797	12/27/1988	Kato et al.	143	7	
	AF	4961786	10/09/1990	Novinson	106	692	
	AG	5837634	11/17/1998	McLaughlin et al.	501	127	
	AH	6399528	06/04/2002	Krell et al.	501	80	03/05/2001
	AI	2003/0032554	02/13/2003	Park et al.	502	302	05/13/2002

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	Translation
							YES NO

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP '609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



FEB 06 2004

for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

2

of

4

Complete if Known

Application Number	10/706,880
Filing Date	November 12, 2003
First Named Inventor	Shuibo Xie
Group Art Unit	
Examiner Name	
Attorney Docket Number	1856-40401(9948.0-02)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.	T ²
	AJ	Amato et al., <i>Sintering of Pelleted Catalysts for Automotive Emission Control</i> , pp. 187-197	
	AK	Arai et al., <i>Recent Progress in High-Temperature Catalytic Combustion</i> , <i>Catalysis Today</i> , 10 (1991) pp. 81-94	
	AL	Arai et al., <i>Thermal Stabilization of Catalyst Supports and their Application to High-Temperature Catalytic Combustion</i> , <i>Applied Catalysis A: General</i> 138 (1996) pp. 161-176	
	AM	Artizzu-Duart et al, <i>Catalytic Combustion of Methane on Substituted Barium Hexaaluminates</i> , <i>Catalysis Today</i> 59 (2000) pp. 163-177	
	AN	Beguin et al., <i>Stabilization of Alumina by Addition of Lanthanum</i> , <i>Applied Catalysis</i> 75 (1991) pp. 119-132	
	AO	Bish et al., <i>Quantitative Phase Analysis Using the Rietveld Method</i> , <i>J. Appl. Cryst.</i> (1998) 21, pp. 86-91	
	AP	Cai et al., <i>Atomic Scale Mechanism of the Transformation of γ-Alumina to O-Alumina</i> , <i>Physical Review Letters</i> , Vol. 89, No. 23, (12/02/2002) pp. 235501-1 – 235501-4	
	AQ	Chen et al., <i>High Temperature Thermal Stabilization of Alumina Modified by Lanthanum Species</i> , <i>Applied Catalysis A: General</i> 205 (2001) pp. 159-172	
	AR	Dexpert-Ghys, <i>Optical and Structural Investigation of the Lanthanum β-Alumina Phase Doped with Europium</i> , <i>Journal of Solid State Chemistry</i> 19, (1976) pp. 193-204	
	AS	Farrington et al., <i>The Lanthanide β'' Alumina</i> , <i>Applied Physics A</i> 32 (1983) pp. 159-161	
	AT	Groppi et al., <i>Preparation and Characterization of Hexaaluminate-Based Materials for Catalytic Combustion</i> , <i>Applied Catalysis A: General</i> , 104 (1993) pp. 101-108	
	AU	Jang et al., <i>Catalytic Oxidation of Methane Over Hexaaluminates and Hexaaluminate-Supported Pd Catalysts</i> , <i>Catalysis Today</i> 47 (1999) pp. 103-113	
	AV	Johansson et al., <i>Development of Hexaaluminate Catalysts for Combustion of Gasified Biomass in Gas Turbines</i> , <i>Journal of Engineering for Gas Turbines and Power</i> , Vol. 124 (04/2002) pp. 235-238	
	AW	Kato et al., <i>Preparation of Lanthanum β-Alumina with High Surface Area by Coprecipitation</i> , <i>Journal of the American Ceramic Society</i> , 70 [7] (07/1987) pp. C-157-159	
	AX	Levy et al., <i>The Effect of Foreign Ions on the Stability of Activated Alumina</i> , <i>Journal of Catalysis</i> 9 (1967) pp. 76-86	
Examiner Signature		Dated Considered	



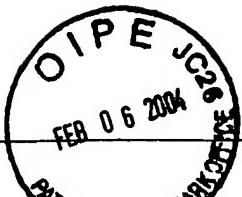
Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	3	of	4	Attorney Docket Number	1856-40401(9948.0-02)
-------	---	----	---	------------------------	-----------------------

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.			T ²
	AY	Liu et al., <i>Partial Oxidation of Methane over Nickel Catalysts Supported on Various Aluminas</i> , Korean Journal of Chemical Engineering 19 (5) pp. 735-741 (2002)			
	AZ	Liu et al., <i>Partial Oxidation of Methane over Ni/Ce-ZrO₂/0-Al₂O₃</i> , Korean Journal of Chemical Engineering 19(5) pp. 742-748 (2002)			
	BA	Machida et al., <i>Effect of Additives on the Surface Area of Oxide Supports for Catalytic Combustion</i> , Journal of Catalysts 103 (1987) pp. 385-393			
	BB	Machida et al., <i>Analytical Electron Microscope Analysis of the Formation of BaO – 6Al₂O₃</i> , Journal of American Ceramic Society 71[12] pp. 1142-47 (1988)			
	BC	Machida et al., <i>Effect of Structural Modification on the Catalytic Property of Mn-Substituted Hexaaluminates</i> , Journal of Catalysis 123 (1990) pp. 477-785			
	BD	<i>8th International Congress on Catalysis Volume IV: Impact of Surface Science on Catalysis Structure-Selectivity/Activity Correlations New Routes for Catalyst Synthesis</i> (pp. IV-879-889)			
	BE	Miao et al., <i>Partial Oxidation of Methane to Syngas over Nickel-Based Catalysts Modified by Alkali Metal Oxide and Rare Earth Metal Oxide</i> , Applied Catalysts A: General 154 (1997) pp. 17-27			
	BF	Nair et al., <i>Pore Structure Evolution of Lanthana-Alumina Systems Prepared through Coprecipitation</i> , Journal of American Ceramic Society 83[8] (2000) pp. 1942-1946			
	BG	Oudet et al., <i>Thermal Stabilization of Transition Alumina by Structural Coherence with LnAlO₃(Ln = La, Pr, Nd)</i> , Journal of Catalysis 114, (1998) pp. 112-120			
	BH	Rahkeev et al., <i>Transition Metal Atoms on Different Alumina Phases: The Role of Subsurfaces Sites on Catalytic Activity</i> , Physical Review B 67, 115414 (2003) pg. 4			
	BI	Rietveld, <i>A Profile Refinement Method for Nuclear and Magnetic Structures</i> , Journal of Appl. Cryst. (1969) 2, pp. 65-71			
	BJ	Roh et al., <i>Partial Oxidation of Methane over Ni/0-Al₂O₃ Catalysts</i> , Chemistry Letters 2001 (pp. 666-667)			
	BK	Santos et al., <i>Standard Transition Aluminas, Electron Microscopy Studies</i> , Materials Research, Vol. 3 No. 4 (2000) pp. 104-114			
	BL	Schaper et al., <i>The Influence of Lanthanum Oxide on the Thermal Stability of Gamma Alumina Catalyst Supports</i> , Applied Catalysis 7 (1983) pp. 211-220			
	AM	Schaper et al., <i>Thermal Stabilization of High Surface Area Alumina</i> , Solid State Ionics 16 (1985) pp. 261-266			
	AN	Seo et al., <i>Experimental and Numerical Studies on Combustion Characteristics of a Catalytically Stabilized Combustor</i> , Catalysis Today 59 (2000) pp. 75-86			
Examiner Signature				Dated Considered	



Substitute for form 1449B/PTO				Complete if Known	
				Application Number	10/706,880
				Filing Date	November 12, 2003
				First Named Inventor	Shuibo Xie
				Group Art Unit	
				Examiner Name	
Sheet	4	of	4	Attorney Docket Number	1856-40401(9948.0-02)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate) title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issued number(s), publisher, city and/or country where published.			T ²
	BO	Russell et al., <i>Thermal Transformations of Aluminas and Alumina Hydrates</i> , Industrial and Engineering Chemistry Vol. 42, No. 7 (1950) pp. 1398-1403			
	BP	Subramanian et al., <i>Characterization of Lanthana/Alumina Composite Oxides</i> , Journal of Molecular Catalysts, 69 (1991) pp. 235-245			
	BQ	Taylor, <i>Computer Programs for Standardless Quantitative Analysis of Minerals Using the Full Powder Diffraction Profile</i> , Powder Diffraction, Vol. 6, No. 1 (1991) pp. 2-9			
	BR	Tietz et al., <i>Investigations on Lanthanide-ion-exchanged β and β''-Alumina</i> , Journal of Alloys and Compounds, 192 (1993) pp. 78-80			
	BS	Tijburg et al., <i>Application of Lanthanum to Psuedo-Boehmite and γ-Al_2O_3</i> , Chapman and Hall (1991) pp. 6479-6486			
	BT	Weng et al., <i>Mechanistic Study of Partial Oxidation of Methane to Syngas Using In Situ Time-Resolved FTIR and Microprobe Raman Spectroscopies</i> , The Chemical Record Vol. 2, pp. 102-113 (2002)			
	BU	Wu et al., <i>Coupled Thermodynamic-Phase Diagram Assessment of the Rare Earth Oxide-Aluminium Oxide Binary Systems</i> , Journal of Alloys and Compounds, 179 (1992) pp. 259-287			
	BV	Zhou et al., <i>Structures and Transformation Mechanisms of the n, γ and θ Transition Aluminas</i> , International Union of Crystallography (1991) pp. 617-630			
Examiner Signature				Dated Considered	